

Application No. 10/029,042

Reply to Office Action of 11/07/2003

REMARKS/ARGUMENTS

Reconsideration of this application as amended is requested.

Claims 1 and 13 are amended. Claim 14 is as previously presented. Claims 15 -17 are added.
Claims 2-12 are canceled.

Basis for the amendment of claim 1 may be found in the specification in paragraphs [0040], [0045] and in Figs. 1 and 7.

Basis for the amendment of claim 13 may be found in claims 1 and 13.

Basis for claims 15 and 17 may be found in the specification in paragraphs [0013], [0043], [0044] and in Figs. 7, 10, 14 and 15.

Basis for claim 16 may be found in the specification in paragraphs [0033] - [0042], amended claim 1, and Fig. 1.

Claims 1 and 14 are rejected under 35 U.S.C. 103(a) over Addicks US 2,776,447 in view of Nakanishi US 5,383,303 in that as to claim 1, Addicks discloses a window balance comprising a window frame (col. 2, ln. 50-53), a window sash (also referred to as a sliding construction or window casing post in col. 2, ln. 34-36) movably mounted in said window frame, a torsion spring 1 (col. 3, ln. 10-12) having a first end (lower end of spring 1 in Figures 1 and 3) and a second end (upper end of spring 1 in Figures 1 and 3), a spiral rod 12 within said torsion spring 1 having a third end (lower end of rod 12 in Figures 1 and 3) near the first end, a fourth end (upper end of rod 12 in Figures 1 and 3) near the second end, and a first axis through the third end and the

fourth end (the longitudinal axis of the spiral rod 11 travels through the third and fourth ends of the spiral rod), a threaded follower 6, 11 mounted on said spiral rod for being rotated by said spiral rod when said follower is moved along said spiral rod between the third end and the fourth end of said spiral rod (col. 3, ln. 1-12), said threaded follower being attached to the first end of said torsion spring for rotating the first end of said torsion spring by rotation of said follower, first means 2, 3 for attaching the second end of said torsion spring to a window sash for axial movement of said torsion spring by the sash for moving said follower along said spiral rod by moving the sash, attached to said window sash.

That Addicks discloses that the bottom mounting portion 13, 14 to which the spiral rod 12 is fixed, is mounted to the frame, and the upper mounting portion 2, 3 to which the torsion spring 1 and follower 6, 11 are fixed is mounted to the sash, a gear assembly 16 fixedly mounted on said window frame.

That the difference between the claim and Addicks is the claim recites a gear shaft attached to the third end of said spiral rod preventing axial movement of said spiral rod with respect to the window frame and for rotating said spiral rod for changing base force in said torsion spring. That Nakanishi discloses a window balance similar to that of Addicks. In addition, Nakanishi further teaches a gear assembly (Figures 5 and 6), comprising a gear shaft 32 attached to the third end of a spiral rod 11 preventing axial movement of said spiral rod and for rotating said spiral rod 11 for changing base force in said torsion spring (col. 6, ln. 28-54). That it would have been obvious to one of ordinary skill in the art, having the disclosures of Addicks and Nakanishi before him at the time of the invention was made, to modify the third end of the spiral rod of Addicks to have a gear shaft of Nakanishi, to obtain a gear shaft mounted to the third end of the spiral rod (the third end of the spiral rod 12 of Addicks was already disclosed by Addicks as being mounted to the frame, and by mounting a gear shaft to the third end, the gear shaft would also be mounted to the frame). One would have been motivated to make such a combination because the ability to adjust the balancing force of the torsion spring would have been obtained, as taught by Nananishi (col. 2, ln. 50-60).

That as to claim 14, Addicks discloses, further comprising: a tension spring 15 attached to said gear assembly 16 and to said first means 2, 3.

The rejection is traversed.

Amended claim 1 and new claim 16 are each different from Addicks and different from Nakashimi.

In Addicks Fig. 3 the third end of spiral rod 12 is hooked through nipple 16 which is mounted on a post that is attached to strip 13. Tension spring 15 is fixedly attached to nipple 2 and fixedly attached to nipple 16 permanently preventing rotation of spiral rod 12 to change base force in the torsion spring. In Fig. 2, the third end of spiral rod 12 cannot be turned when strip 13 is attached to the window frame.

This is different from amended claim 1's and new claim 16's first and second gears, fixedly mounted on the window frame, attached to the third end of the spiral rod preventing axial movement of the rod, and rotating the spiral rod by one of the gears when driven by the other gear. Which is different from Nakashimi's slotted for screw driver, ungeared shaft 35 journaled in a sliding block that is attached to the sash, and attached to one end of spiral rod 11 so that shaft 35 moves the rod relative to the window frame.

In view of the above discussion and reasons, neither Addicks 2,776,447, nor Nakanishi, 5,383,303 taken singly or in combination, disclose the present invention described in amended claim 1 and new claim 16, or make it obvious.

E. F. Taylor 889,064, A. Larson 2,041,646, D. Tappan 2,415,614, J. H. Kishimoto JP200105861, F. J. Decker et al. 2,825,088; 2,851,721 and V. V. Kubisiak 3,330,071 have been revisited and do not appear to add anything that would further contribute to making the invention as described in amended claim 1, obvious.

In view of the above amendments and discussion it is believed that the 35 U.S.C. 103(a) rejections of claims 1 and 14 are overcome. It is respectfully requested that the rejections of claims 1 and 14 which depends from claim 1 be withdrawn.

Claim 13 is objected to because the amendment filed 9/9/03 indicates that claims 2-13 are canceled, but adds claim 13 as a new dependent claim. Correction of this discrepancy is required. The correction is made by stating that claims 2-12 are canceled.

Claim 13 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 13 which depends from claim 1 is rewritten in independent form including all the limitations of claim 1 and claim 13. Allowance of claim 13 as amended is respectfully requested.

In view of the above amendments and discussion it is believed that the 35 U.S.C. 103(a) rejection of claims 1 and 14, the objection to claim 13 are overcome. It is respectfully requested that claims 1 and 13-17 be allowed.

A petition for extension of time and fee for two months extension accompanies this paper.

Respectfully submitted,

 April 5, 2004
Robert A. Seemann Date

Reg. No. 29,857

89 Earl Avenue, Hamden, CT 06514

Tel. (203) 288-2122 Fax (203) 281-7313